

Psychiatric Manifestations of Infective "C" Hepatitis

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To evaluate some of the psychiatric changes in 40 patients having infective "C" hepatitis. Cross sectional case control study was conducted among 40 patients (20 males and 20 females). They were diagnosed as hepatitis C virus infection by 1) Liver enzymes. 2) Second generation EISA 3) Hepatitis C virus RNA by nested polymerase chain reaction (PCR). Patients and control group (40=20 males and 20 females) were subjected to psychometric tools: 1) Middle Sex Questionnaire 2) Minnesota Multi Phasic personality Inventory (M M P I) 3) Premorbid Adjustment Scale (P A S). Statistical procedure: One way and two ways ANOVA were used for comparing means of two independent groups at two different occasions.

Patients had high scores among the psychosomatic and psychasthenia subscales, this finding was statistically significant. Patients had higher scores than the control group in depression, and obsession subscales, with no significant difference. Accommodation scores by (PAS) were higher among the cases than the control group. This difference was statistically significant.

There was a marked significant difference between patients and control group in psychosomatic and psychasthenia subscales, that could reflect the impact of chronicity of the illness. It is evident that, hepatitis infection, disturbed significantly the degree of functioning of patient's life as seen in work, social and marital spheres.(Egypt. J. Psychiat., 1998, 21 :151 -158).

INTRODUCTION

In 1910, sir Armand Raffer described finding typical schistosome eggs in the kidneys of two Egyptian mummies dating from between 1250 and 1000 BC, Bloody urine a sign characteristic of urinary schistosomiasis, was mentioned about 50 times in Egyptian papyri, in the medical papyrus Elers, it was called a-a-a disease, and its Hieroglyph was a dripping penis (Mekheimer, 1992). Liver

disease is associated with much physical ill health, psychiatric morbidity and impaired quality of life. The association between liver disorder and mental disturbance has been recognized since the time of Hippocrates (Collis and Lloyd, 1992).

Hepatitis C is an important cause of hepatitis in many tropical and developing countries. It is endemic in Egypt (El-Zayadi, et al., 1992, El- Khashab, et al., 1995).

Anti HCV (Hepatitis C virus) is unexplainable high among Egyptians, the potential importance of HCV as a cause of liver disease in Egypt has been noticed. Rate of 11% - 22% seropositivity were reported among volunteer blood donors (Saeed et al., 1992) (Darwish et

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al., 1993), and (Hibbs et al., 1993). The prevalence of anti HCV is specially high in rural areas. It is as high as 12% in rural primary school reaching 18.1% in rural community (Abdel - Wahab et al., 1994).

Self - esteem and basic affective state of patients with acute viral hepatitis differed significantly from that of patients with depression. (Bartholomew, et al., 1991). Covert manifestations of depression may include somatization, Pain, abnormal behavior, non-compliance and the refusal of medical treatment. The identification of depressive symptoms and syndromes in the medically ill may permit interventions that can relieve distress and improve the quality of life for many individuals (Roden and Voshart, 1986).

Viral hepatitis is usually an acute, self - limiting disease but it may develop into a chronic active liver disorder. Viral hepatitis is a risk factor for post - infection fatigue, Intermittent fatigue, as well as for psychiatric morbidity. Chronic fatigue syndrome have recently attracted much interest and research has focused on a possible viral cause (Bere-loivity, et al., 1995).

The primary aim of this study is to evaluate some of the psychiatric changes in a sample of patients with laboratory proved infective "C" hepatitis.

SUBJECTS AND METHODS

This is a cross - sectional case control study. The study was conducted in the inpatient tropical departement of 9 fever and general hospitals in greater Cairo. The sample as seen in table I comprised of 40 patients (20 males, and 20 females), in ratio of 1: 1. The age of patients ranged between 26 and 55 years. None of them had started interfer-

on therapy. Patients were compared and matched to control group of 40 subjects. They were matched for age and sex with no record of liver affection.

Methods and procedures

Patients were diagnosed as hepatitis "C" infection by.

Liver enzymes.

Second generation ELISA for anti - hepatitis "C" virus antibodies.

Hepatitis "C" Virus RNA rested polymerase chain reaction (PCR).

Psychometry

Patients and controls were subjected to the following psychometric tools:

Middle Sex Questionnaire.

This is a true and false, self administered personality test of 48 questions. It measures the tendency for anxiety, phobia, obsession, depression, psychosomatic manifestations, and hysteria. Scores above 8 means the tendency of the subject towards the item questioned.

Minnesota Multiphasic Personality Inventory (M. M. P. I.):

This is a true and false self administered personality test of 567 questions. 48 questions measuring psychasthenia were selected from the MMPI. Scores above 24 indicate significance.

Premobid Adjustment scale Arabic version of (PAS) was applied. This version is an Arabic translation and modification of the original PAS (Cannon - Spoor et al., 1982).

This scale is a rating scale designed to evaluate the level of functioning in four major areas of subjects life as in childhood period, early adolescence, late adolescence, and adulthood. The final section was the only section used as it gives more general and global view of the subject rating and scoring.

The scale contains 9 items with scor-

ing range of 0-9. The 0 end of the continuum denotes the healthiest end of adjustment range and the least healthy end the subject selects the number that corresponds most closely to the description phrase measuring it. The ratings received for each item in a section are summed and expressed as total score divided by the possible score:

The nine points of the (PAS) include:

Education.

Employ for pay or functioning in school.

Change in work or school performance.

Frequency of job change, if working, or interruption of school attendance.

Establishment of independence.

Social personal adjustment.

Global assessment of highest level of functioning achieved in patients life.

Degree of interest in life.

Energy level.

Statistical procedure

Student t - test was used for comparison of means of independent groups (cases versus controls), and chi - square test for comparing proportions. One way ANOVA was used for comparing means than two groups, and two ways ANOVA for comparing means in two independent

groups at two different occasions. P value is considered significant if less than 0.05 (Saunders and Trapp 1994).

RESULTS

Table I showed the demographic data of patients and control groups.

Table II showed the difference between patients and controls among the middle Sex Questionnaire. Patients significantly differed from controls on the psychosomatic subscale with $P < 0.003$.

Table III showed that patients significantly differed from controls on psychasthenia subscale of the M. M. P. L., $P < 0.009$.

Table IV showed the results of the (PAS) designed to evaluate means of scores before and after the infection by hepatitis. Means of scores was significantly increased (Poor achievement), with $P < 0.001$.

Table V showed that the marital status was the only variable showed significant change after the illness. Married patients had the highest change with least accommodation after infection. The mean duration was 0.298 ± 0.13 for the married, versus 0.128 ± 0.08 and 0.143 ± 0.16 for single and widow patients respectively, $P < 0.003$.

Table 1
Shows the Demographic Data of Patients and Control Group

	Patients N = 40	Controls N = 40
Sex		
Male	20 = 50 %	20 = 50 %
Female	20 = 50 %	20 = 50 %
Age		
(Mean & SD)	38.6 ± 7.6	37.5 ± 4.8
Marital status		
Married	32 = 80 %	31 = 77.5 %
Divorced	2 = 5 %	1 = 2.5 %
Single	6 = 15 %	8 = 20 %
Educational year		
(Mean & SD)	7.5 ± 3.5	6.9 ± 3.1
Occupation		
Professional	8 = 20 %	4 = 10 %
Manual worker	16 = 40 %	16 = 40 %
H.W	16 = 40 %	20 = 40 %

Table 2
Comparison of Scores of Middle Sex Questionnaire

	Cases N = 40		Control N = 40		Chisquare	P Value
	<8	>8	<8	>8		
Psychosomatic	13	27	26	14	8.4	0.003*
Anxiety	29	11	29	11	0	1
Phobias	29	11	27	17	0.23	0.6
Depression	18	22	26	14	3.2	0.07
Hysteria	37	3	31	9	3.5	0.06
Obsession	12	28	13	27	0.05	0.8

* Statistically Significant.

Table 3
Comparison of Scores of Psychasthenia.

	Cases		Controls		Chisquare	P Value
	N = 40		N = 40			
	<24	>24	<24	>24		
Psychasthenia	25	15	35	5	6.67	0.009*

* Statistically Significant.

Table 4
Premorbid Adjustment Scale (PAS) before and after
disease in cases of Hepatitis and Controls.

	Cases					
	Before		After		controls	
	No.	%	No.	%	No.	%
0.00 - 0.20	16.0	40.0	2.0	5.0	19.0	47.5
0.21 - 0.40	14.0	35.0	9.0	22.5	14.0	35.0
0.41 - 0.60	9.0	22.5	16.0	40.0	7.0	17.5
0.60 - 0.80	1.0	2.5	9.6	22.0	0.0	0.0
> 0.80	0.0	0.0	4.0	10.0	0.0	0.0
Mean	0.26		0.51		0.22	
SD	0.17		0.21		0.15	
Median	0.23		0.52		0.21	
P value (Controls)	0.27		<0.001*			

* Statistically Significant.

* Statistically Significant.

Table 5
Correlation Between Socioeconomic Variable and Accommodation.

Marital Status	Mean $\pm$ SD	Social Status	Mean $\pm$ SD	Educational level	Mean $\pm$ SD
Married (29)	0.298 $\pm$ 0.13	Low (15)	0.284 $\pm$ 0.08	Prim school (17)	0.289 $\pm$ 0.11
Single (8)	0.128 $\pm$ 0.08	Moderate (16)	0.213 $\pm$ 0.14	Sec. School (18)	0.225 $\pm$ 0.16
widow(3)	0.143 $\pm$ 0.16	High (9)	0.273 $\pm$ 0.22	College (5)	0.228 $\pm$ 0.19
F ratio	6.64		1.015		0.93
P value	0.003*		0.37		0.40

* Statistically Significant.

DISCUSSION

One of the important findings in our study is the high scores of the patients on the psychosomatic scale. Difference between patients and controls was highly significant. Our results were similar to Desmet et al., (1994), who found that nausea, abdominal pains and muscle or joint aches are common among patients with chronic viral hepatitis.

Unexpectedly other scores of the Middle Sex Questionnaire (depression, anxiety, phobia, obsession, hysteria), did not differ significantly between patients and control group. It seems that God faith, good emotional support and care of the family may protect against depression and anxiety, while confronting the danger of the chronic illness may leave no space to immature or hysterical defenses.

Feifel et al. (1987), gave a near explanation that contending with a precise danger to life elicits a different manner of coping than wrestling with a more generalized and indefinite threat. The significant use of confrontation in this regard, eg. increased information seeking, cognitive redefinition of the illness, and greater involvement in the treatment process, signals that when individuals are

aware of the seriousness of their situation, the consequence is not necessarily depression and loss of hope but a marshaling of available life forces and efforts to deal with their condition.

M. M. P.I. Psychasthenia subscale:

Patients with hepatitis scored significantly high scores than the control group. This was similar to post-hepatitis syndrome described by Weissman (1987) and characterized by fatigability, abdominal discomfort, digestive disturbance, emotional instability.

Davis et al., (1994) used the sickness Impact profile to evaluate the impact of hepatitis and interferon therapy on health related quality of life in patients with chronic hepatitis C. They had a score of 9.0 compared with a score of 3.6 among the general population ($P < 0.05$). Patients had worse score in almost every category of the sickness Impact profile. Also, Berelowitz et al., (1995), found that patients with acute viral hepatitis A or B are subsequently more likely to suffer from persisting fatigue, greater weight change, less fit, and had less exercise tolerance than the control group.

III- Promorbid Adjustment Scale (PAS).

This scale aimed to measure the degree of change of functioning after being infected with hepatitis. Though no other studies had been found to either oppose or affirm our findings, we found that patients especially the married showed poor achievement in social sphere, work performance and decreased energy level.

Poor achievement (social and work) could be explained by the impact of chronic physical illness, (high psychasthenia scores), fear of transmitting infection to others, dependency on near relatives and high emotional and financial responsibilities needed from the married individuals.

Conclusion

Patients with hepatitis "C" infection have high scores on psychasthenia and psychosomatic manifestations that may play a role beside the impact of chronicity in establishing poor achievement among patients.

Recommendations

Further researches are needed to draw the relation between liver diseases and psychiatric illnesses.

Coping mechanisms and psychological profile of hepatic patients should be investigated.

special rehabilitation programs should be used to improve the quality of life of the chronic or terminally ill hepatic patients.

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Les Manifestations Psychiatriques De L' Hepatite "C" Infectieuses

Cette recherche a été faite pour étudier les divers aspects psychologiques des patients atteints de l'hépatite 'C'. L'échantillon de cette recherche est constitué de 40 patients et 40 en observation, moitié hommes et moitié femmes. Différents investigation psychologiques ont été appliquées.

Les résultats ont montré que les symptômes psychosomatiques et psychoasthéniques sont clairement identifiés chez patients. Ces derniers ont aussi plus de difficultés d'adaptation aux travaux et aux relations sociales.

المظاهر النفسية للإلتهاب الكبدي فيروس "ج"

كان الغرض من هذا البحث هو دراسة الجوانب النفسية لمرض الإلتهاب الكبدي. وقد تكونت العينة من ٤٠ مريضاً أثبت إصابتهم بالإلتهاب الكبدي نوع «ج». وتكونت الحالات من ٢٠ ذكراً و ٢٠ أنثى بنسبة ١:١ وتراوح أعمارهم بين ٢٦ - ٥٥ عاماً بمتوسط ٣٨.٦ + ٦ و ٧ ولقد تكونت العينة الضابطة من ٤٠ شخصاً عادياً لم يصابوا من قبل بأي من أمراض الكبد.

ولقد تم ضبط العينة من ناحية الجنس والعمر والحالة الاجتماعية ومستوى التعليم والمستوى الاجتماعي لتفادي النتائج المضللة.

(١) ولقد اتبع لكل من الحالات والعينة الضابطة من إجابة استمارة أسئلة محددة (مقياس ميدل سيكس) بعد ترجمتها إلى اللغة العربية لقياس النزوع إلى القلق، الخوف، الوسواس القهري، الأعراض النفس جسدية، الاكتئاب، والهستيريا.

(٢) ولقياس الضعف النفس تم اتخاذ مقياس (منيوساتا) وقد اعتبر عدد النقاط أعلى من ٢٤ نقطة النزوع إلى الضعف النفس.

(٣) وكان المقياس الثالث لتقييم مدى التأقلم قبل وبعد الإصابة بالإلتهاب الكبدي وأيضاً لمقارنة الحالات بالعينة الضابطة.

ولقد أظهرت النتائج أن الأعراض النفس جسدية والوهن النفس كانت أعلى بدرجة ملحوظة في حالات الإلتهاب الكبدي من العينة الضابطة.

ولم يثبت عن طريق هذه الدراسة وجود فروق واضحة بين حالات الإلتهاب الكبدي نوع «ج» والعينة الضابطة بالنسبة لمقاييس القلق، الاكتئاب النفس، الوسواس القهري، المخاوف أو الهستيريا. وتفسر الدرجات القليلة على هذا الاختبار لوجود بعض المساعدات الوجدانية التي يتلقاها المرضى من ذويهم. كما يعتقد أن ارتفاع درجات الإيمان بالله سبحانه وتعالى هي من أكبر الدعائم لإبتعاد الاكتئاب والقلق عند المرضى.

كما أثبت البحث أن الحالات المصابة بالإلتهاب الكبدي تعاني من صعوبة في التأقلم والتكيف مع الحياة وبالذات في مجال العمل والعلاقات الاجتماعية الأسرية.